

MEMORANDUM
Commonwealth of Virginia
Department of Environmental Quality
Water Division

SUBJECT: Guidance Memo No. 03-2009

Implementation Guidance for Reissuance of VPDES General Permit VAG25 -
VPDES General Permit for Cooling Water Discharges, 9 VAC 25-196

TO: Regional Directors

FROM: Larry G. Lawson, P.E., Director



DATE: April 10, 2003

COPIES: Regional Water Permit Managers, Regional Water Compliance and Enforcement Managers, Martin G. Ferguson, Jon van Soestbergen

Summary:

This guidance memo replaces Guidance Memo No. 98-2002, the original implementation guidance for the issuance of General Permit VAG25. On January 6, 2003, the State Water Control Board adopted the amended General VDPES Permit Regulation 9 VAC 25-196-10 et seq. that reissues the subject general permit. The general permit will be effective March 2, 2003 and it expires March 1, 2008. Copies of the regulation, the general permit, the fact sheet, and the registration statement and instructions are attached for your information. The purpose of this memorandum is to identify the changes that have been made in the reissued general permit and to provide DEQ staff with some guidance on how to implement it.

The current VPDES General Permit VAG25 expires on March 1, 2003. All facilities currently permitted under VAG25 must submit a registration statement and appropriate fee to be permitted under the amended general permit.

Please note that based on a monitoring data review performed in the fall of 2002 and recommendations made subsequent to that review, important evaluation, inspection, and compliance information, requiring additional action during the term of the permit, is included in the implementation guidance.

Contact Information:

If you have any questions regarding this guidance, please contact Jon van Soestbergen at (804) 698-4117, email jvansoest@deq.state.va.us.

Disclaimer:

This document is provided as guidance and, as such, sets forth standard operating procedures for the agency. However, it does not mandate any particular method nor does it prohibit any particular method for the analysis of data, establishment of a wasteload allocation, or establishment of a permit limit. If alternative proposals are made, such proposals should be reviewed and accepted or denied based on their technical adequacy and compliance with appropriate laws and regulations.

Implementation Guidance for the Reissuance of VPDES General Permit VAG25 – VPDES General Permit for Cooling Water Discharges

1. Introduction

This guidance replaces Guidance Memo No. 98-2002, the original implementation guidance for VAG25. On January 6, 2003, the State Water Control Board adopted amendments to the General VPDES Permit Regulation 9 VAC 25-196 that will allow reissuance of the subject general permit. The effective date of this general permit is March 2, 2003 and it will expire March 1, 2008. A copy of the adopted regulation and the final version of the fact sheet are attached for your information. Separate copies of the general permit and the registration statement, including instructions, are attached for use by regional permit writers. These documents are also available in electronic form on DEQNET.

The general permit requires several parameters to be monitored, although it includes no effluent limitations for these parameters. In the fall of 2002, after the draft general permit was developed, approved by EPA, and subjected to public comment and public hearing as authorized by the State Water Control Board in accordance with standard regulatory development and permit reissuance protocols, an issue regarding the general permit's adequacy was brought forth by staff. A review of a limited amount of data received from a select number of facilities registered under the general permit indicated exceedances of the water quality criteria for metals, particularly copper and zinc. A further review of DMR data reviewed by the Office of Water Permit Programs for 19 facilities indicated that 11 suggest recurring violations of Virginia's copper criteria in the effluent. However, the data set reviewed for the vast majority of facilities was small, and the metals data for at least some of the data collected was found to be invalid.

Pursuant to the data review performed, the decision was made to proceed with issuance of the general permit. However, specific recommendations were made based on the results of the review. The recommendations made are documented in the memorandum, "VPDES General Permit for Cooling Water Discharges", Jon van Soestbergen to Martin Ferguson, November 18, 2002. The memorandum is included as an attachment for reference. The recommendations as set forth in the referenced memorandum have been incorporated into this guidance.

2. Changes to the General Permit

In addition to the date changes, the following significant changes have been made to the general permit.

a. Registration statement removed from regulation

The registration statement has been removed from the regulation. However, the information required to be submitted on the registration statement is retained in 9 VAC 25-196-60. This approach allows for increased flexibility in formatting registration statements (i.e. on-line registration, etc.) and is consistent with amendments being made to all other VPDES general permit regulations as the general permits are reissued.

b. Part I.A.1 - Ammonia monitoring

This is a new requirement for cooling water discharges where the source of cooling water is chlorinated or contains chloramines, a popular alternative to chlorine in public water supplies. Footnote 3 on the effluent limitations page has also been reworded to clarify that chlorine and ammonia limitations/monitoring apply only when the source of cooling water is chlorinated or contains chloramines and the discharge is directly to surface waters. Ammonia monitoring should only be required where the source water contains chloramines.

c. Part I.B.3.f - special condition

This is a new special condition that requires the applicant to attach to the registration statement information such as product or constituent degradation, fate, transport, synergies, bioavailability, etc. that will aid the board with the toxicity evaluation for the discharge.

d. Part I.B.4 - special condition

This special condition has been amended to require that the permittee provide to DEQ a copy of the required notification when cooling water is discharged through a municipal separate storm sewer system to surface waters.

3. Evaluation of Discharges Permitted by VAG25, 1998-2003

General Permit VAG25 requires several parameters to be monitored, although it includes no effluent limitations for these parameters.

Effluent monitoring data was collected during the 1998-2003 permit term from individual facilities scheduled for registration under this general permit. An analysis of the available data should be performed to determine whether the data is adequate and subsequently whether an effluent limit is necessary for the individual facility. If an effluent limit for a parameter monitored but not limited in the general permit is necessary, the regional office should contact the facility and inform the permittee 1) of the conclusion and its basis, and 2) that the permittee must apply for an individual permit for the affected discharge.

4. Coverage and Restrictions

The general permit is applicable to discharges of cooling water either directly to surface waters or indirectly to surface waters through a municipal separate storm sewer system (MS4), subject to the following restrictions:

- a. The discharge can not exceed 50,000 gallons per day;

- b. The owner has not been required to obtain an individual permit;
- c. No discharges are allowed to Class V stockable trout waters, Class VI natural troutwaters, or any state waters specifically named in other board regulations or policies which prohibit such discharges;
- d. Chlorine or any other halogen compound shall not be used for disinfection or other treatment purposes, including biocide applications, for any discharges to waters containing endangered species as identified in 9 VAC 25-260-110 C of the Water Quality Standards;
- e. Tributyltin and any chemical additives containing tributyltin, nor any hexavalent-chromium based water treatment chemicals may be used in the cooling water systems; and
- f. The owner shall not use groundwater remediation wells as the source of cooling water.

5. Registration Statements and Fee Forms

Registration statements and instructions are included with this guidance as an attachment. The registration forms have changed slightly. Do not use registration statements used for the 1998-2003 general permit cycle.

Registration statements, fee forms, and fees must be received as follows:

- a. Affected facilities

Discharges that are currently covered by General Permit VAG25 must submit a registration statement in order to continue coverage under the reissued permit. Registration statements from these facilities must be received prior to March 2, 2003 to ensure continued coverage of the discharge under the general permit. See Section 3 for monitoring data evaluation requirements of discharges covered by the existing general permit VAG25 expiring March 1, 2003.

Qualifying new discharges must submit a registration statement prior to commencing discharge in order to obtain coverage under the general permit.

Qualifying existing facilities that currently discharge to surface waters or to a MS4 without a permit must submit a registration statement in order to obtain coverage under the general permit.

Qualified facilities that currently discharge cooling water under an individual VPDES permit can apply for coverage under the general permit. It is preferable that such application be timed to coincide with the expiration of the individual permit. However, a

discharger can also request that the facility's individual permit be revoked so that the discharge can be covered under the general permit.

b. On-line registration

On-line registration for coverage under this general permit is not yet available.

c. Registration statement and fee submittal

Original signed registration statements must be submitted to the regional office with jurisdiction over the locality in which the discharge takes place. A copy of the fee form and a copy of the applicant's check must accompany the registration statement. The original signed fee form and check must be submitted to Receipts Control at the DEQ Central Office. A copy of the required fee form, which includes the appropriate address, is provided with this guidance as an attachment.

6. Fee Schedule

The fee for registration under this general permit is \$600. However, under State Water Control Law, the fee must be prorated depending on the amount of time remaining in the permit term. For this general permit, the prorate schedule is as follows:

<u>Start Date</u>	<u>End Date</u>	<u>Fee</u>
March 2, 2003	- September 1, 2003	\$600
September 2, 2003	- September 1, 2004	\$480
September 2, 2004	- September 1, 2005	\$360
September 2, 2005	- September 1, 2006	\$240
September 2, 2006	- September 1, 2007	\$120
September 1, 2007	- March 1, 2008	\$ 0

Note that effective July 1, 2004, State Water Control Law limits allowable fees for general permits to a maximum of \$200. Unless legislative action is taken, the preceding fee schedule will need to be revised to reflect the requirements of the law. Any revisions to the above fee schedule will be communicated by the Office of Water Permit Programs.

7. Issuance of the General Permit to a Discharger

Once it is determined that the registration statement represents a facility that qualifies for coverage, the general permit pages can be prepared. The general permit pages are included with this guidance as an attachment. The cover page, printed on agency letterhead, appropriate Part I effluent limits pages, special conditions, and boilerplate should be assembled with the general permit number for the facility entered in the upper right hand corner of the Part I pages. Be sure to do a final Part I page count and add page numbers to the upper right hand corner of the Part I pages. The pages of Part II are already numbered. The appropriate outfall number must be

added at the end of the first sentence on each effluent limits page. No other changes to the language of the general permit are authorized.

The system for numbering new facilities registered under the general permit has changed. Permit numbers are assigned sequentially by CEDS when the registration statement is saved into the database. All permit numbers will begin with the same five characters: VAG25. The remaining numbers are assigned by CEDS. Please remember that the permit number must be added to the permit pages, including the cover page, before the permit is mailed to the permittee.

The general permit requires quarterly monitoring and reporting. Therefore, Discharge Monitoring Reports (DMR) are necessary for reporting and compliance tracking. DMRs should be prepared to reflect the applicable effluent limitations and monitoring requirements for each outfall addressed in Part I of the permit.

Use the appropriate letter to transmit the permit and DMRs to the permittee. It is not necessary to copy the DEQ Office of Water Permit Programs or EPA on individual coverage under a general permit. Note that the transmittal letter for coverage under a general permit does not contain the two paragraphs referencing the owner's right to appeal the decision to cover them under a general permit. The transmittal letter should indicate when DMRs are due (see Section 10) and where the DMRs are to be sent.

8. Termination of Coverage and Change of Ownership

If an owner requests termination of coverage under the general permit the regional office can terminate coverage under regional letterhead.

If there is a request for change of ownership, then the new owner assumes the coverage under the general permit and the permit number does not change. The new owner may submit a new registration statement, but it is not required. Part II of the permit allows for automatic transfer of ownership if the 30 day prior notice and the required written agreement between the new and old owners are provided. The other change of ownership requirements and procedures in the VPDES Permit Regulation and VPDES Permit Manual that are common to all VPDES permits apply to this general permit as well. Any change of status should be noted in CEDS.

9. Unpermitted Discharges

The November 18, 2002 memorandum specifically recommends that efforts be made to expand upon the number of facilities registered under the general permit. This recommendation is based on staff opinion that there is a high probability that many cooling water discharges in the Commonwealth remain unpermitted.

Regional offices should make reasonable effort to identify unpermitted cooling water discharges and pursue coverage for these facilities under this general permit. Efforts to comply with this recommendation should be documented by regional water programs management.

10. Compliance Reporting

DMRs are due on the tenth of January, April, July, and October. Tracking of compliance with the effluent limits and other requirements of the permit should be done according to the Compliance Auditing System already established. Reporting requirements for noncompliance, unusual or extraordinary discharges, etc. are the same as for individual permits.

11. Inspection of Facilities Covered

Facilities covered under this general permit are subject to the requirements for the industrial small category of facilities as set forth in DEQ's inspection strategy. As such, they should be inspected at least once every five years. The inspection should verify the chemical and/or non-chemical treatment employed, check for overflows and condition of the cooling equipment which may indicate poor operation and maintenance, and verify the discharge points, either to MS4s or directly to surface waters. An inspection log maintained on site which records at least once per year inspection performed by the facility personnel should also be checked at the time of inspection.

The November 18, 2002 memorandum referenced in Section 1 (Introduction) made a specific recommendation relative to inspections. To increase the confidence level in data collected and submitted to DEQ as required under this permit, it is recommended that sampling inspections be performed at all the facilities registered under the general permit and that the laboratories performing the analyses for the permitted facilities be inspected at least once during the permit term. These inspections should be performed as soon as feasible after the permit is issued in order to correct deficiencies identified during the inspection(s).

Copies of inspection records should be submitted to the Inspections Group of the Office of Water Permit Programs.

12. Monitoring Data Review

Per the recommendations set forth in the November 18, 2002 memorandum, two years prior to expiration of the proposed permit (i.e. Spring 2005), the Office of Water Permit Programs should analyze the data from all permitted facilities and from permitted facilities where the water source is a municipal water supply system to determine the following:

- a. Is a general permit appropriate for cooling water discharges?
- b. Should facilities whose source water is from a municipal water supply system be excluded from coverage under the general permit?
- c. Are additional effluent limitations required in the general permit for all facilities or a subset of facilities?

Regional offices should ensure that all relevant monitoring records are maintained and filed such that the information can be provided in a timely manner to the Office of Water Permit Programs upon request.

13. Record Keeping and Audit

Tracking of coverage under this general permit will be in CEDS. It is important that CEDS is kept updated with relevant information pertaining to the general permit, and this information is subject to audit. Database information must include, but is not limited to, facilities registered under the permit, permittees, contact information, and permit numbers.

Hard copy files that must be retained and are subject to audit include, but are not limited to, the following:

- a. A copy of the registration statement and information required by the registration statement;
- b. A record of the evaluation of monitoring data used to determine eligibility for continued coverage of discharges covered by the previous (1998-2003) general permit VAG25 based on the monitoring data submitted, and the conclusions reached;
- c. A copy of the general permit and DMR(s) sent to the permittee;
- d. Copies of all inspection reports related to the discharge;
- e. Copies of monitoring data submitted and retained as necessary to satisfy the requirements of Section 12 of this guidance; and
- f. Regional water program efforts to identify and pursue coverage for unpermitted cooling water discharges as recommended under Section 9 of this guidance.
- g. OWPP efforts to fulfill the requirements of Section 12 and Section 14 of this guidance.

14. Amendment of 9 VAC 25-196 and Reissuance of VAG25 on March 2, 2008

If General Permit VAG25 is to be reissued upon its expiration on March 1, 2008, timely action is necessary on the part of the Office of Water Permit Programs. Part II.M – Duty to reapply, of the general permit requires that all permittees with a currently effective permit shall submit a new registration statement at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the board. Therefore, the Office of Water Permit Programs must schedule amendment of the general permit regulation such that it is adopted by the State Water Control Board prior to September 2, 2007, or formally communicate to the regional offices the later date by which registration statements will be allowed to be submitted. Such communication must be made prior to September 2, 2007.

Attachments:

- A. General Permit Regulation
- B. General Permit Fact Sheet
- C. General Permit Pages
- D. Registration Statement and Instructions
- E. Fee Form
- F. Example Registration Statement Transmittal Letter
- G. Example Transmittal Letter for General Permit Issuance
- H. November 18, 2002 Memorandum, "VPDES General Permit for Cooling Water Discharges"

Attachment A

**General Permit Regulation 9 VAC 25-196
VPDES General Permit for Cooling Water Discharges**

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COMMONWEALTH OF VIRGINIA
STATE WATER CONTROL BOARD

9 VAC 25-196-10 et seq. - GENERAL VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM (VPDES) PERMIT REGULATION FOR COOLING WATER DISCHARGES

Adopted January 6, 2003 Effective March 2, 2003

9 VAC 25-196-10. Definitions

The words and terms used in this regulation shall have the meanings defined in the Code of Virginia Section 62.1-44.2 et seq. (State Water Control Law), and 9 VAC 25-31-10 et seq. (VPDES Permit Regulation) unless the context clearly indicates otherwise, except that for the purposes of this regulation:

"Blowdown" means a discharge of recirculating water from any cooling equipment or cooling process in order to maintain a desired quality of the recirculating water. Boiler blowdown is excluded from this definition.

"Cooling Water" means water used for cooling which does not come into direct contact with any raw product, intermediate product (other than heat) or finished product. For the purposes of this general permit, cooling water can be generated from any cooling equipment blowdown or produced as a result of any non-contact cooling process through either a single pass (once through) or recirculating system.

"Department" means the Virginia Department of Environmental Quality.

"Director" means the Director of the Virginia Department of Environmental Quality, or an authorized representative.

9 VAC 25-196-20. Purpose

This general permit regulation governs the point source discharge of cooling water to surface waters.

9 VAC 25-196-30. Delegation of Authority

The Director, or an authorized representative, may perform any act of the Board provided under this regulation, except as limited by Section 62.1-44.14 of the Code of Virginia.

9 VAC 25-196-40. Effective Date of the Permit

This general permit will become effective on March 2, 2003. This general permit will expire five years from the effective date. This general permit is effective as to any covered owner upon compliance with all the provisions of 9 VAC 25-196-50 and the receipt of this general permit.

9 VAC 25-196-50. Authorization to Discharge

A. Any owner governed by this general permit is hereby authorized to discharge to surface waters of the Commonwealth of Virginia provided that the owner files and receives acceptance by the board of the registration statement of 9 VAC 25-196-60, files the required permit fee, complies with the effluent limitations and other requirements of 9 VAC 25-196-70, and provided that:

1. The owner has not been required to obtain an individual permit according to 9 VAC 25-31-170 B 3.
2. The owner shall not discharge to Class V stockable trout waters, Class VI natural trout waters, or any state waters specifically named in other Board regulations or policies which prohibit such discharges.

Chlorine or any other halogen compounds shall not be used for disinfection or other treatment purposes, including biocide applications, for any discharges to waters containing endangered or threatened species as identified in 9 VAC 25-260-110 C of the Water Quality Standards.

3. The owner shall neither use tributyltin and any chemical additives containing tributyltin, nor use any hexavalent chromium-based water treatment chemicals in the cooling water systems.

4. The owner shall not use groundwater remediation wells as the source of cooling water.

B. Receipt of this general permit does not relieve any owner of the responsibility to comply with any other federal, state or local statute, ordinance or regulation.

9 VAC 25-196-60. Registration Statement

The owner shall file a complete general VPDES permit registration statement for cooling water discharges. Any owner proposing a new discharge shall file a complete registration statement at least 30 days prior to the date planned for commencing operation of the new discharge. Any owner of an existing discharge covered by an individual VPDES permit who is proposing to be covered by this general permit shall file the registration statement at least 180 days prior to the expiration date of the individual VPDES permit. Any owner of an existing discharge not currently covered by a VPDES permit who is proposing to be covered by this general permit shall file a complete registration statement. The required registration statement shall contain the following information:

1. Facility name and address, owner name and mailing address and telephone number;
2. Operator name, mailing address, and telephone number if different from owner;
3. Does the facility currently have a VPDES permit? Permit Number if yes;
4. Listing of point source discharges that are not composed entirely of cooling water;
5. Listing of type and size (tons) of cooling equipment or noncontact cooling water processes;
6. The following information if any chemical or nonchemical treatment, or both, is employed in each of the cooling water systems:
 - a. Description of the chemical or nonchemical treatment, or both, to be employed and its purpose;
For chemical additives other than chlorine, b, c, and d below;
 - b. Name and manufacturer of each additive used;
 - c. List of active ingredients and percent composition;
 - d. Proposed schedule and quantity of chemical usage, and estimate of the concentration in the discharge;
 - e. Available aquatic toxicity information for each proposed additive used; and
 - f. Any other information such as product or constituent degradation, fate, transport, synergies, bioavailability, etc., that will aid the board with the toxicity evaluation of the discharge.
7. Description of any type of treatment or retention being provided to the wastewater before discharge (i.e. retention ponds, settling ponds, etc.)

8. A schematic drawing of the cooling water equipment that shows the source of the cooling water, its flow through the facility, and each cooling water discharge point.
9. For cooling waters with a direct discharge to surface waters, a topographic map extending to at least one mile beyond the property boundary. The map must show the outline of the facility and the location of each of its existing and proposed intake and discharge points, and must include all springs, rivers and other surface water bodies.
10. The following discharge information:
 - a. A listing of all cooling water discharges by a unique number;
 - b. The source of cooling water for each discharge;
 - c. An estimate of the maximum daily flow in gallons per day for each discharge;
 - d. The name of the waterbody receiving direct discharge or discharge through the municipal separate storm sewer system;
 - e. The duration and frequency of the discharge for each separate discharge point; continuous, intermittent, or seasonal;
 - f. The name and contact information of the owner of the municipal separate storm sewer system that receives the discharge, if applicable.

11. The following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

The registration statement shall be signed in accordance with 9 VAC 25-31-110.

9 VAC 25-196-70. General Permit

Any owner whose registration statement is accepted by the board will receive the following permit and shall comply with the requirements therein and be subject to all requirements of 9 VAC 25-31.

General Permit No.: VAG25

Effective Date: March 2, 2003
Expiration Date: March 1, 2008

GENERAL PERMIT FOR COOLING WATER DISCHARGES

AUTHORIZATION TO DISCHARGE UNDER THE
VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM
AND
THE VIRGINIA STATE WATER CONTROL LAW

In compliance with the provisions of the Clean Water Act, as amended, and pursuant to the State Water Control Law and regulations adopted pursuant thereto, owners of cooling water discharges are authorized to discharge to surface waters within the boundaries of the Commonwealth of Virginia, except Class V stockable trout waters, Class VI natural trout waters, and those specifically named in board regulations or policies which prohibit such discharges. Chlorine or any other halogen compounds shall not be used for disinfection or other treatment purposes, including biocide applications, for any discharges to waters containing endangered or threatened species as identified in 9 VAC 25-260-110 C of the Water Quality Standards.

The authorized discharge shall be in accordance with this cover page, Part I -- Effluent Limitations and Monitoring Requirements, and Part II -- Conditions Applicable To All VPDES Permits, as set forth herein.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to discharge cooling water. Samples taken in compliance with the monitoring requirements specified below shall be taken at the following location(s):
outfall(s) : _____.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTICS</u>	<u>DISCHARGE LIMITATIONS</u>		<u>MONITORING REQUIREMENTS</u>	
	<u>Maximum</u>	<u>Minimum</u>	<u>Frequency</u>	<u>Sample Type</u>
Flow (MGD)	0.05	NA	1/3 Months	Estimate
Temperature (°C)	(1)	NA	1/3 Months	Immersion Stabilization
pH (SU)	9 ⁽²⁾	6 ⁽²⁾	1/3 Months	Grab
Ammonia-N ⁽³⁾ (mg/l)	NL	NA	1/3 Months	Grab
Total Residual Chlorine ⁽³⁾ (mg/l)	Nondetectable	NA	1/3 Months	Grab
Hardness (mg/l CaCO ₃)	NL	NA	1/3 Months	Grab
Total Dissolved Copper ⁽⁴⁾ (ug/l)	NL	NA	1/3 Months	Grab
Total Dissolved Zinc ⁽⁴⁾ (ug/l)	NL	NA	1/3 Months	Grab
Total Dissolved Silver ^(4,5) (ug/l)	NL	NA	1/3 Months	Grab
Total Phosphorus ⁽⁶⁾ (mg/l)	NL	NA	1/3 Months	Grab

NL = No limitation, monitoring required

NA = Not applicable

- (1) The effluent temperature shall not exceed a maximum 32 °C for discharges to nontidal coastal and piedmont waters, or 31 °C for mountain and upper piedmont waters. No maximum temperature limit, only monitoring, applies to discharges to estuarine waters.

The effluent shall not cause an increase in temperature of the receiving stream of more than 3°C above the natural water temperature. The effluent shall not cause the temperature in the receiving stream to change more than 2 °C per hour. Natural temperature is defined as that temperature of a body of water (measured as the arithmetic average over one hour) due solely to natural conditions without the influence of any point-source discharge.

- (2) Where the Water Quality Standards (9 VAC 25-260-5 et seq.) establish alternate standards for pH in the waters receiving the discharge, those standards shall be the maximum and minimum effluent limitations.
- (3) Chlorine limitation of nondetectable (<0.1 mg/l) and chlorine and ammonia monitoring only apply to outfalls directly discharging to surface waters where the source of cooling water is chlorinated or contains chloramines.
- (4) A specific analysis is not specified for these materials. An appropriate analysis shall be selected from the following list of EPA methods to achieve a quantification level that is less than the target level for the material under consideration:

	<u>EPA Method</u>	<u>Target Level (ug/l)</u>
Copper	220.1, 220.2, 200.7, 200.8, 200.9, 1638, 1640	9.2
Zinc	289.1, 289.2, 200.7, 200.8, 1638, 1639	65.0
Silver	272.1, 272.2, 200.7, 200.8, 200.9, 1638	1.2

Quality control/assurance information shall be submitted to document that the required quantification level has been attained.

- (5) Silver monitoring is only required where Cu/Ag anode is used.
- (6) Phosphorus monitoring is only required where additive containing phosphorus is used.

B. Special conditions.

1. There shall be no discharge of floating solids or visible foam in other than trace amounts.
2. No discharges other than cooling water, as defined, are permitted under this general permit.
3. The use of any chemical additives not identified in the registration statement, except chlorine, without prior approval is prohibited under this general permit. Prior approval shall be obtained from the DEQ before any changes are made to the chemical and/or nonchemical treatment technology employed in the cooling water system. Requests for approval of the change shall be made in writing and shall include the following information:
 - a. Describe the chemical and/or nonchemical treatment to be employed and its purpose; if chemical additives are used, provide the information prescribed in subdivisions 3 b, c, d and e;
 - b. Provide name and manufacturer of each additive used;
 - c. Provide list of active ingredients and percentage composition;
 - d. Give the proposed schedule and quantity of chemical usage, and estimate the concentration in the discharge; and
 - e. Attach available aquatic toxicity information for each additive proposed for use.
 - f. Attach any other information such as product or constituent degradation, fate, transport, synergies, bioavailability, etc. that will aid the board with the toxicity evaluation for the discharge.
4. Where cooling water is discharged through a municipal storm sewer system to surface waters, the permittee shall, within 30 days of coverage under this general permit, notify the owner of the municipal separate storm sewer system of the existence of the discharge and provide the following information: the name of the facility; a contact person and phone number; nature of the discharge, number of the outfalls, and the location of the discharge. A copy of such notification shall be provided to the department.
5. The permittee shall at all times properly operate and maintain all cooling water systems. Inspection shall be conducted for each cooling water unit by the plant personnel at least once per year with reports maintained on site.
6. The permittee shall notify the Department as soon as they know or have reason to believe:
 - a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:
 - (1) One hundred micrograms per liter (100 ug/l);
 - (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; 500 micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
 - (3) Five times the maximum concentration value reported for that pollutant in the permit application; or
 - (4) The level established by the board in accordance with 9 VAC 25-31-220 F.

b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:

- (1) Five hundred micrograms per liter (500 ug/l);
- (2) One milligram per liter (1 mg/l) for antimony;
- (3) Ten times the maximum concentration value reported for that pollutant in the permit application; or
- (4) The level established by the board in accordance with 9 VAC 25-31-220 F.

PART II

CONDITIONS APPLICABLE TO ALL VPDES PERMITS

A. Monitoring.

1. Samples and measurements taken as required by this permit shall be representative of the monitored activity.
2. Monitoring shall be conducted according to procedures approved under 40 CFR Part 136 or alternative methods approved by the U.S. Environmental Protection Agency, unless other procedures have been specified in this permit.
3. The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will ensure accuracy of measurements.

B. Records.

1. Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) and time(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses.
2. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years, the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the registration statement for this permit, for a period of at least 3 years from the date of the sample, measurement, report or request for coverage. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the permittee or as requested by the board.

C. Reporting monitoring results.

1. The permittee shall submit the results of the monitoring required by this permit not later than the 10th day of the month after monitoring takes place, unless another reporting schedule is specified elsewhere in this permit. Monitoring results shall be submitted to the department's regional office.
2. Monitoring results shall be reported on a Discharge Monitoring Report (DMR) or on forms provided, approved or specified by the department.
3. If the permittee monitors any pollutant specifically addressed by this permit more frequently than required by this permit using test procedures approved under 40 CFR Part 136 or using other test procedures approved by the U.S. Environmental Protection Agency or using procedures specified in this

permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the department.

4. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

D. Duty to provide information. The permittee shall furnish to the Department, within a reasonable time, any information which the Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Board may require the permittee to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from his discharge on the quality of state waters, or such other information as may be necessary to accomplish the purposes of the State Water Control Law. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

E. Compliance schedule reports. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

F. Unauthorized discharges. Except in compliance with this permit or another permit issued by the board, it shall be unlawful for any person to:

1. Discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances; or
2. Otherwise alter the physical, chemical or biological properties of such state waters and make them detrimental to the public health, or to animal or aquatic life, or to the use of such waters for domestic or industrial consumption, for recreation, or for other uses.

G. Reports of unauthorized discharges. Any permittee who discharges or causes or allows a discharge of sewage, industrial waste, other wastes or any noxious or deleterious substance into or upon state waters in violation of Part II F, or who discharges or causes or allows a discharge that may reasonably be expected to enter state waters in violation of Part II F, shall notify the department of the discharge immediately upon discovery of the discharge, but in no case later than 24 hours after said discovery. A written report of the unauthorized discharge shall be submitted to the department within five days of discovery of the discharge. The written report shall contain:

1. A description of the nature and location of the discharge;
2. The cause of the discharge;
3. The date on which the discharge occurred;
4. The length of time that the discharge continued;
5. The volume of the discharge;
6. If the discharge is continuing, how long it is expected to continue;
7. If the discharge is continuing, what the expected total volume of the discharge will be; and
8. Any steps planned or taken to reduce, eliminate and prevent a recurrence of the present discharge or any future discharges not authorized by this permit.

Discharges reportable to the department under the immediate reporting requirements of other regulations are exempted from this requirement.

H. Reports of unusual or extraordinary discharges. If any unusual or extraordinary discharge including a bypass or upset should occur from a treatment works and the discharge enters or could be expected to enter state waters, the permittee shall promptly notify, in no case later than 24 hours, the department by telephone after the discovery of the discharge. This notification shall provide all available details of the incident, including any adverse affects on aquatic life and the known number of fish killed. The permittee shall reduce the report to writing and shall submit it to the department within five days of discovery of the discharge in accordance with Part II I 2. Unusual and extraordinary discharges include but are not limited to any discharge resulting from:

1. Unusual spillage of materials resulting directly or indirectly from processing operations;
2. Breakdown of processing or accessory equipment;
3. Failure or taking out of service some or all of the treatment works; and
4. Flooding or other acts of nature.

I. Reports of noncompliance. The permittee shall report any noncompliance which may adversely affect state waters or may endanger public health.

1. An oral report shall be provided within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which shall be reported within 24 hours under this subsection:
 - a. Any unanticipated bypass; and
 - b. Any upset which causes a discharge to surface waters.
2. A written report shall be submitted within five days and shall contain:
 - a. A description of the noncompliance and its cause;
 - b. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
 - c. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The board may waive the written report on a case-by-case basis for reports of noncompliance under Part II I if the oral report has been received within 24 hours and no adverse impact on state waters has been reported.

3. The permittee shall report all instances of noncompliance not reported under Parts II I 1 or 2, in writing, at the time the next monitoring reports are submitted. The reports shall contain the information listed in Part II I 2.

NOTE: The immediate (within 24 hours) reports required in Parts II G, H and I may be made to the department's regional office by telephone or by fax. For reports outside normal working hours, leave a message and this shall fulfill the immediate reporting requirement. For emergencies, the Virginia Department of Emergency Services maintains a 24-hour telephone service at 1-800-468-8892.

J. Notice of planned changes.

1. The permittee shall give notice to the department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

a. The permittee plans alteration or addition to any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:

(1) After promulgation of standards of performance under §306 of Clean Water Act which are applicable to such source; or

(2) After proposal of standards of performance in accordance with §306 of Clean Water Act which are applicable to such source, but only if the standards are promulgated in accordance with §306 within 120 days of their proposal;

b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations nor to notification requirements specified elsewhere in this permit; or

c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

2. The permittee shall give advance notice to the department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

K. Signatory requirements.

1. Registration statements. All registration statements shall be signed as follows:

a. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy-making or decision-making functions for the corporation, or (ii) the manager of one of more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

c. For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a public agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

2. Reports, etc. All reports required by permits, and other information requested by the board shall be signed by a person described in Part II K 1, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

- a. The authorization is made in writing by a person described in Part II K 1;
- b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company (a duly authorized representative may thus be either a named individual or any individual occupying a named position); and
- c. The written authorization is submitted to the department.

3. Changes to authorization. If an authorization under Part II K 2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part II K 2 shall be submitted to the department prior to or together with any reports or information to be signed by an authorized representative.

4. Certification. Any person signing a document under Parts II K 1 or 2 shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

L. Duty to comply. The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the State Water Control Law and the Clean Water Act, except that noncompliance with certain provisions of this permit may constitute a violation of the State Water Control Law but not the Clean Water Act. Permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

The permittee shall comply with effluent standards or prohibitions established under §307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under §405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if this permit has not yet been modified to incorporate the requirement.

M. Duty to reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit. All permittees with a currently effective permit shall submit a new registration statement at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Board. The Board shall not grant permission for registration statements to be submitted later than the expiration date of the existing permit.

N. Effect of a permit. This permit does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorize any injury to private property or invasion of personal rights, or any infringement of federal, state or local law or regulations.

O. State law. Nothing in this permit shall be construed to preclude the institution of any legal action under, or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any other state law or regulation or under authority preserved by §510 of the Clean Water Act. Except as provided in permit conditions on bypass (Part II U), and upset (Part II V), nothing in this permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

P. Oil and hazardous substance liability. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under §§62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

Q. Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes effective plant performance, adequate funding, adequate staffing, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

R. Disposal of solids or sludges. Solids, sludges or other pollutants removed in the course of treatment or management of pollutants shall be disposed of in a manner so as to prevent any pollutant from such materials from entering state waters.

S. Duty to mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

T. Need to halt or reduce activity not a defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

U. Bypass.

1. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts II U 2 and U 3.

2. Notice.

a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, prior notice shall be submitted, if possible at least ten days before the date of the bypass.

b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Part II I.

3. Prohibition of bypass.

a. Bypass is prohibited, and the board may take enforcement action against a permittee for bypass, unless:

(1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(3) The permittee submitted notices as required under Part II U 2.

b. The board may approve an anticipated bypass, after considering its adverse effects, if the board determines that it will meet the three conditions listed above in Part II U 3 a.

V. Upset.

1. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of Part II V 2 are met. A determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is not a final administrative action subject to judicial review.

2. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An upset occurred and that the permittee can identify the cause(s) of the upset;

b. The permitted facility was at the time being properly operated;

c. The permittee submitted notice of the upset as required in Part II I; and

d. The permittee complied with any remedial measures required under Part II S.

3. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

W. Inspection and entry. The permittee shall allow the director, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act and the State Water Control Law, any substances or parameters at any location.

For purposes of this section, the time for inspection shall be deemed reasonable during regular business hours, and whenever the facility is discharging. Nothing contained herein shall make an inspection unreasonable during an emergency.

X. Permit actions. Permits may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Y. Transfer of permits.

1. Permits are not transferable to any person except after notice to the department. Except as provided in Part II Y 2, a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued, or a minor modification made, to identify the new permittee and incorporate such other requirements as may be necessary under the State Water Control Law and the Clean Water Act.
2. As an alternative to transfers under Part II Y 1, this permit may be automatically transferred to a new permittee if:
 - a. The current permittee notifies the department at least 30 days in advance of the proposed transfer of the title to the facility or property;
 - b. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
 - c. The board does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Part II Y 2 b.

Z. Severability. The provisions of this permit are severable. If any provision of this permit or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances and the remainder of this permit, shall not be affected thereby.

9 VAC 25-196-80 Repealed

DOCUMENTS INCORPORATED BY REFERENCE

<i>Method</i>	<i>Cite</i>
200.7	EPA 600/R-94-111; 40 CFR 136, App D, 1996
200.8	EPA 600/R-94-111
200.9	EPA 600/R-94-111
220.1	EPA 600/4-79-020; 40 CFR 136, App D, 1996
220.2	EPA 600/4-79-020; 40 CFR 136, App D, 1996
272.1	EPA 600/4-79-020
272.2	EPA 600/4-79-020; 40 CFR 136, App D, 1996
289.1	EPA 600/4-79-020; 40 CFR 136, App D, 1996
289.2	EPA 600/4-79-020
1638	EPA 821/R-95-031
1639	EPA 821/R-95-032
1640	EPA 821/R-95-033

Attachment B

**Final Fact Sheet
General Permit VAG25**

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**ISSUANCE OF A GENERAL VPDES PERMIT
FOR COOLING WATER DISCHARGES**

The Virginia State Water Control Board has developed a general VPDES permit for point source discharges of cooling water to municipal separate storm sewer systems and surface waters.

Permit Number: VAG25

Name of Permittee: Any owner of a cooling water discharge in the Commonwealth of Virginia agreeing to be regulated under the terms of this general permit.

Facility Location: Commonwealth of Virginia

Receiving Waters: Surface waters within the boundaries of the Commonwealth of Virginia, except Class V stockable waters, Class VI natural trout waters, and those specifically named in Board Regulations or policies which prohibit such discharges. Discharge to surface waters may be through a municipal separate storm sewer system. Chlorine or any other halogen compounds shall not be used for disinfection or other treatment purposes, including biocide applications, for any discharges to waters containing endangered or threatened species as identified in 9 VAC 25-260-110 C of the Water Quality Standards.

The State Water Control Board adopted the general VPDES permit regulation January 6, 2003, with an effective date of March 2, 2003. Non-contact cooling water discharges are similar in composition even though they may not be generated by a single industrial category or point source. The Department of Environmental Quality has determined that this type of discharge is appropriately controlled under a general permit. The draft general permit requires that all covered facilities meet standardized effluent limitations and monitoring requirements.

All pertinent information is on file and may be inspected, and arrangements made for copying by contacting Jon van Soestbergen at:

Virginia Department of Environmental Quality
P.O. Box 10009
Richmond, Virginia 23240-0009
(804) 698- 4117

Activities Covered By This General Permit And Sources Of Wastewater

This general permit covers point source discharges of cooling water and cooling equipment blowdown to surface waters. Discharge to surface waters may be through a municipal separate storm sewer system (MS4).

"Cooling Water" means water used to reduce temperature which does not come into direct contact with any raw product, intermediate product (other than heat) or finished product. For the purposes of this general permit, cooling water can be generated from any cooling equipment blowdown or produced as a result of any non-contact cooling process through either a single pass (once through) or recirculating system. "Blowdown" is a discharge of recirculating water from any cooling equipment or cooling process in order to maintain a desired quality of the recirculating water. Water which is used for cooling purposes and which commingles with a wastewater or process fluid becomes process wastewater and is not covered by this general permit. Boiler blowdown and storm water discharges are also excluded from the coverage of this general permit.

This general permit is not applicable for a category where effluent guidelines have been promulgated, such as steam electric generating stations (see 40 CFR Part 423).

The cooling water's source can be a well, surface water, or the potable water supply. The water is used in a process for cooling. The temperature control system operates so that the cooling water does not come into direct contact with the raw materials. The primary pollutant associated with cooling equipment blowdown and non-contact cooling water discharges is the heat taken up by the water. In one pass cooling water facilities, after the heat transfer has taken place, the water is discharged. Once-through cooling generates relatively large volumes of water. In most cases, the water passes through the heat exchange apparatus and is discharged without chemical additives or treatment.

Other cooling equipment, such as cooling towers, use less water because they usually operate in a recycle, rather than once-through, mode. Generally associated with air conditioning units, cooling towers are used to remove heat from a fluid by evaporating water. Water is dispersed over a media or trickled through shallow pans as air is blown over it. Evaporation cools the water down to the ambient air temperature. The cool water is then piped to a heat exchanger within the air conditioning chiller where it absorbs the heat released as freon is condensed. The cycle is completed when the water is pumped back to the cooling tower. A certain amount of the water in the cooling equipment system must be replaced during each or several cycles in order to maintain the desired properties of the water. This type of discharge (blowdown) is usually lower in volume than the once-through cooling discharge, but it has a greater potential to contain pollutants. The reuse of water usually requires some sort of treatment to inhibit corrosion and scale build-up, to reduce biological growth, and to reduce deposition of water impurities in the system. Chemical and/or non-chemical treatment may be employed to address these problems.

Due to the concern that tributyltin compounds are not easily degradable and thus have long-lasting residual effects, and the stringent water quality standards for tributyltin (0.026 ppb in freshwater and 0.001 ppb in saltwater), discharges that use biocides containing tributyltin will be excluded from the coverage of this general permit. In addition, this general permit will not cover any cooling water discharges that use hexavalent chromium (Cr^{+6})-based water treatment chemicals in the cooling water system. This restriction is imposed based on the provision promulgated under 40 CFR Part 749 that prohibits the use of hexavalent chromium-based water treatment chemicals in comfort cooling towers (CCT's). Although CCT's are dedicated exclusively to, and are an integral part of heating, ventilation, and air conditioning (HVAC) or refrigeration systems, it is anticipated that the majority of the cooling water discharges covered by this general permit will be generated from CCT's. In order to assure compliance with the halogen ban of 9 VAC 25-260-110 of the Water Quality Standards, chlorine or any other halogen compounds are not allowed to be used for disinfection or other treatment purposes, including biocide applications, for any discharges to water containing endangered or threatened species as identified in 9 VAC 25-260-110 C of the Water Quality Standards.

Using chloramines to disinfect drinking water is a common practice among drinking water utilities. Ammonia is a by-product of the use of chloramines for this purpose. Therefore, ammonia monitoring is required where the sources of cooling water is disinfected using chloramines. The purpose is to collect data to evaluate whether the general permit is appropriate for such discharges and/or whether ammonia limits may be required in such discharges for the next reissuance of the general permit. Therefore, ammonia monitoring should only be included where the source water contains chloramines.

As a non-chemical treatment alternative, an ion generator is commonly employed in the cooling water system. DC current is passed through anodes made of copper and silver alloy. This process releases copper and silver ions into the water. The ions neutralize bacteria and algae. Other non-chemical treatment alternatives, such as magnetic descaling which reduces the scale build-up by creating alternating magnetic fields, may require

alternative treatment for control of biological growth. Either a silver/copper anode unit or chlorine addition may serve this purpose.

Due to the concern that toxic effects could occur as a result of contaminated water sources from groundwater remediation wells, discharges that use groundwater remediation wells as cooling water source will be excluded from the coverage of this general permit.

The cooling water discharges normally do not include a treatment system. However, retention or settling ponds may be used to equalize the flow, lower the temperature, or to settle any possible solids that may occur in the discharge.

Effluent Limitations and Monitoring Requirements

<u>Parameter</u>	<u>Limitation</u>
Flow	0.05 MGD maximum
Temperature	Maximum ⁽¹⁾
pH	6.0 minimum, 9.0 maximum ⁽²⁾
Total Residual Chlorine ⁽³⁾	Non-detectable max.
Ammonia-N ⁽³⁾	No limit, monitoring required
Hardness	No limit, monitoring required
Total Dissolved Copper ⁽⁴⁾	" " "
Total Dissolved Zinc ⁽⁴⁾	" " "
Total Dissolved Silver ^(4,5)	" " "
Total Phosphorus ⁽⁶⁾	" " "

All monitoring is once per three months by grab sample, except for temperature, by immersion/stabilization.

- (1) The effluent temperature shall not exceed a maximum 32 °C for discharges to non-tidal coastal and piedmont waters, or 31 °C for mountain and upper piedmont waters. No maximum temperature limit, only monitoring, applies to discharges to estuarine waters.

The effluent shall not cause an increase in temperature of the receiving stream of more than 3 °C above the natural water temperature. The effluent shall not cause the temperature in the receiving stream to change more than 2 °C per hour.

Natural temperature is defined as that temperature of a body of water (measured as the arithmetic average over one hour) due solely to natural conditions without the influence of any point-source discharge.

- (2) Where the Water Quality Standards (9 VAC 25-260-5 et seq.) establish alternate standards for pH in the waters receiving the discharge, those standards shall be the maximum and minimum effluent limitations.
- (3) Chlorine limitation of non-detectable (<0.1 mg/l) and monitoring only apply to outfalls directly discharging to surface waters and are required where the source of cooling water is chlorinated. Ammonia_N monitoring applies only where the source of cooling water is disinfected using chloramine.
- (4) A specific analysis is not specified for these materials. An appropriate analysis shall be selected from the following list of EPA methods to achieve a quantification level that is less than the target level for the material under consideration:

	<u>EPA Method</u>	<u>Target Level(ug/l)</u>
Copper	220.1, 220.2, 200.7, 200.8, 200.9, 1638, 1640	9.2
Zinc	289.1, 289.2, 200.7, 200.8, 1638, 1639	65.0
Silver	272.1, 272.2, 200.7, 200.8, 200.9, 1638	1.2

Quality control/assurance information shall be submitted to document that the required quantification level has been attained.

- (5) Total dissolved silver monitoring is only required where a Cu/Ag anode is used as a non-chemical treatment alternative.
- (6) Phosphorus monitoring is only required where additive containing phosphorus is used.

Basis For Effluent Limitations And Monitoring Requirements

Technology-Based Effluent Limitations

EPA has not promulgated National Effluent Guidelines for non-contact cooling water discharges. For a category where Guidelines have been promulgated, such as steam electric generating stations, the issuance of an individual permit for the discharges would be more appropriate. (See 9 VAC 25-31-170 B. 3. a.(3)).

Water Quality-Based Effluent Limitations

Water quality-based limitations for the following three parameters are imposed in this general VPDES permit: pH, temperature, and total residual chlorine (TRC).

The pH limitation is based upon the Water Quality Standards (9 VAC 25-260-5 et seq.). There shall be no change from background conditions that would impair any uses assigned to the receiving streams.

Because of the concern of excess heat from cooling water discharges, once through systems in particular, a respective temperature limit for non-tidal coastal and piedmont waters or mountainous waters, based on the Virginia Water Quality Standards (9 VAC 25-260-50) is placed in the permit. Restrictions on rise above natural temperature and maximum hourly temperature change are also imposed. In order to ensure that the stringent temperature standards for put and take trout waters and natural trout waters will be maintained, cooling water discharges to these receiving streams will not be covered by this general permit, rather be covered by an individual permit.

The general permit contains a TRC limit of non-detectable (<0.1 mg/l) in order to ensure that the Water Quality Standards (9 VAC 25-260-140) are maintained regardless of the dilution available to the discharge. The selection of the non-detectable limit, rather than the numerical standard itself which is below the detection level, is consistent with other VPDES permits issued by the Board. Total residual chlorine limitation and monitoring are required for facilities where the following conditions prevail: 1) There is a direct discharge to surface waters; and 2) The source of cooling water is chlorinated. For cooling water discharges to the MS4s, it is anticipated that dissipation in the cooling process and chlorine demand in the MS4s will reduce the residual chlorine to "de minimis" level. For any cooling water discharges to waters containing endangered and threatened species as identified in the Water Quality Standards (9 VAC 25-260-110 C.), chlorine or any other halogen compounds are not allowed to be used in the cooling water system.

Toxics Considerations

Due to the concern that the use of corrosion inhibitors and/or biocides may be allowed through this general permit, and that metals could be discharged and thus the quality of the receiving stream could be impacted, a maximum flow of 0.05 MGD is imposed in this general permit. It is the opinion of the Department that a larger discharge would need to be monitored on a more frequent basis and need additional controls, and it would be more appropriate to be covered by an individual permit. This approach is also consistent with the agency's Toxics Management Program.

Further assessment of the need for toxicity monitoring requirements for the restricted flow discharges (< 0.05 MGD) was performed by conducting an in-house review of toxicity test data for non-contact cooling water discharges (with or without additives). It showed that 94% of acute toxicity tests had an LC₅₀ greater than or equal to 100% effluent. It was concluded that these types of discharges, in general, are not acutely toxic. The report also showed that 75% of chronic toxicity tests had a no observed effect concentration (NOEC) greater than or equal to 100% effluent, which is the worst case of the instream waste concentration (IWC). These results indicate that both acute and chronic tests passed the decision criteria (75% of the tests) established by the Toxic Management Program. Therefore, additional toxicity monitoring is not imposed in this general permit.

The following parameters are required to be monitored without specific limitations: Hardness, Total Dissolved Copper, Total Dissolved Zinc, and Total Phosphorus. These parameters were selected after reviewing results of a cooling tower effluent characterization study conducted by the Hampton Roads Sanitation District (HRSD) and the Hampton Roads Planning District Commission (HRPDC). Monitoring of phosphorous is only required where additives containing such chemical are used. In order to anticipate the use of Cu/Ag anode as a non-chemical treatment method, the general permit also contains the monitoring requirement for Total Dissolved Silver wherever a Cu/Ag anode is used. Toxic effects could occur as a result of toxic source water or due to dissolution of the piping in the cooling water system. The monitoring requirements should address this concern. The monitoring requirements will provide additional effluent data which will be used to evaluate the need for future effluent limits.

Special Conditions and Their Basis

1. Restriction of floating solids and visible foam discharges

This condition is required to implement the Water Quality Standards (9 VAC 25-260-20).

2. Prohibition of any discharges other than cooling water as defined

The effluent limitations do not address pollutants typical of treated sewage, process wastewater, or storm water discharges, therefore no discharges other than cooling water as defined are permitted under the general permit.

3. Prohibition of unapproved chemical usage and prior approval requirement for change of treatment technology

In order to assure protection of water quality and beneficial uses of the waters receiving the discharge, the use of any chemical additives not identified in the registration statement, except chlorine, without prior approval is prohibited under this general permit. The general permit contains a water quality-based chlorine limitation.

The chemical and/or non-chemical treatment that are employed in the cooling water system will be identified on the registration statement and evaluated before the facility is covered under the general permit. Prior approval shall be obtained from the DEQ before any changes are made to the chemical and/or non-chemical treatment technology employed in the cooling water system, during the life of the permit term.

4. Notification of municipal separate storm sewer system

Where cooling water discharges to surface waters through a municipal separate storm sewer system, the permittee is required to notify the owner of the municipal separate storm sewer system of the existence of the discharge.

5. Requirement for proper O & M and routine inspection

Due to the concern of the lack of inspection and proper operation and maintenance of each cooling water system, a routine inspection is required by the facility personnel.

6. Notification levels

The permittee is required to report the discharge of any toxic pollutant from any activity that has occurred or will occur when that discharge, either on routine or non-routine basis, will exceed the highest of the listed notification levels. This condition is required by the VPDES Permit Regulation (9 VAC 25-31-200 A).

In developing the effluent limitations and special conditions the following information was reviewed: the permitting strategies, effluent limitations, treatment technologies and special conditions that are being employed by the Department of Environmental Quality for individual VPDES permits, and other states (NJ, NC, NH, ME, MA, OR, IN, WI, and AL) for general VPDES permits issued to cooling water discharges; EPA Region II Revised Guidance for Cooling Water and Storm Water Runoff; Cooling Tower Discharge Policy and Guidance Manual published by the Hampton Roads Planning District Commission; and the results of a HRSD/HRPDC cooling tower effluent characterization study.

General Permit Coverage

The general permit has a fixed term of 5 years. Every authorization under this general permit will expire at the same time and all authorizations will be renewed on the same date, provided a complete registration statement has been filed prior to the general permit's expiration date.

All persons desiring to be covered by this general permit must register with the Department by filing a registration statement and applicable fees. The registration statement shall be submitted and a notification of coverage issued prior to any discharges or other activities for which this permit is required.

Cooling water sources that are discharging to surface waters on the effective date of this general permit and that have not been issued an individual VPDES permit, are required to submit the registration statement. Existing operations with individual VPDES permits that wish to seek coverage under the proposed general permit would have to file a registration statement at least 180 days prior to the expiration date of the individual VPDES permit. For all new cooling water dischargers that propose to discharge to surface waters and that will begin activities after the effective date of this permit, the registration statement shall be filed at least 30 days prior to the commencement of construction or operation of the cooling equipment.

This general permit does not cover activities or discharges covered by an individual VPDES permit until the individual permit has expired or has been revoked. Any person conducting an activity covered by an individual permit, which could be covered by this general permit, may request that the individual permit be revoked and register for coverage under this general permit. Antbacksliding will be considered prior to granting the coverage under this general permit. Any owner or operator not wishing to be covered or limited by this general permit may make application for an individual VPDES permit, in accordance with VPDES procedures, stating the reasons supporting the request.

This general permit does not apply to any new or increased discharge that will result in significant effects to the receiving waters. The determination is made in accordance with the State Water Control Board's Antidegradation Policy contained in 9 VAC 25-260-30 of the Virginia Water Quality Standards.

All facilities that the Department believes are eligible for coverage under this general permit will be authorized to discharge under the terms and conditions of the permit after a complete registration statement is submitted, the applicable permit fee is paid and the Department sends a copy of the general permit to the applicant. If this general permit is inappropriate; for example, effluent limitations are needed for any parameters other than flow, pH, temperature and total residual chlorine, the applicant will be so notified and the requirement that an individual permit or alternate general permit is needed will remain in effect.

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Attachment C

**Permit Pages
General Permit VAG25**

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General Permit No.: VAG25

Effective Date: March 2, 2003
Expiration Date: March 1, 2008

GENERAL PERMIT FOR COOLING WATER DISCHARGES

AUTHORIZATION TO DISCHARGE UNDER THE
VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM
AND
THE VIRGINIA STATE WATER CONTROL LAW

In compliance with the provisions of the Clean Water Act, as amended, and pursuant to the State Water Control Law and regulations adopted pursuant thereto, owners of cooling water discharges are authorized to discharge to surface waters within the boundaries of the Commonwealth of Virginia, except Class V stockable trout waters, Class VI natural trout waters, and those specifically named in board regulations or policies which prohibit such discharges. Chlorine or any other halogen compounds shall not be used for disinfection or other treatment purposes, including biocide applications, for any discharges to waters containing endangered or threatened species as identified in 9 VAC 25-260-110 C of the Water Quality Standards.

The authorized discharge shall be in accordance with this cover page, Part I -- Effluent Limitations and Monitoring Requirements, and Part II -- Conditions Applicable To All VPDES Permits, as set forth herein.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to discharge cooling water. Samples taken in compliance with the monitoring requirements specified below shall be taken at the following location(s):
outfall(s) :_____.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTICS</u>	<u>DISCHARGE LIMITATIONS</u>		<u>MONITORING REQUIREMENTS</u>	
	<u>Maximum</u>	<u>Minimum</u>	<u>Frequency</u>	<u>Sample Type</u>
Flow (MGD)	0.05	NA	1/3 Months	Estimate
Temperature (°C)	(1)	NA	1/3 Months	Immersion Stabilization
pH (SU)	9 ⁽²⁾	6 ⁽²⁾	1/3 Months	Grab
Ammonia-N ⁽³⁾ (mg/l)	NL	NA	1/3 Months	Grab
Total Residual Chlorine ⁽³⁾ (mg/l)	Nondetectable	NA	1/3 Months	Grab
Hardness (mg/l CaCO ₃)	NL	NA	1/3 Months	Grab
Total Dissolved Copper ⁽⁴⁾ (ug/l)	NL	NA	1/3 Months	Grab
Total Dissolved Zinc ⁽⁴⁾ (ug/l)	NL	NA	1/3 Months	Grab
Total Dissolved Silver ^(4,5) (ug/l)	NL	NA	1/3 Months	Grab
Total Phosphorus ⁽⁶⁾ (mg/l)	NL	NA	1/3 Months	Grab

NL = No limitation, monitoring required

NA = Not applicable

- (1) The effluent temperature shall not exceed a maximum 32 °C for discharges to nontidal coastal and piedmont waters, or 31 °C for mountain and upper piedmont waters. No maximum temperature limit, only monitoring, applies to discharges to estuarine waters.

The effluent shall not cause an increase in temperature of the receiving stream of more than 3°C above the natural water temperature. The effluent shall not cause the temperature in the receiving stream to change more than 2°C per hour. Natural temperature is defined as that temperature of a body of water (measured as the arithmetic average over one hour) due solely to natural conditions without the influence of any point-source discharge.

- (2) Where the Water Quality Standards (9 VAC 25-260-5 et seq.) establish alternate standards for pH in the waters receiving the discharge, those standards shall be the maximum and minimum effluent limitations.
- (3) Chlorine limitation of nondetectable (<0.1 mg/l) and chlorine and ammonia monitoring only apply to outfalls directly discharging to surface waters where the source of cooling water is chlorinated or contains chloramines.
- (4) A specific analysis is not specified for these materials. An appropriate analysis shall be selected from the following list of EPA methods to achieve a quantification level that is less than the target level for the material under consideration:

	<u>EPA Method</u>	<u>Target Level (µg/l)</u>
Copper	220.1, 220.2, 200.7, 200.8, 200.9, 1638, 1640	9.2
Zinc	289.1, 289.2, 200.7, 200.8, 1638, 1639	65.0
Silver	272.1, 272.2, 200.7, 200.8, 200.9, 1638	1.2

Quality control/assurance information shall be submitted to document that the required quantification level has been attained.

- (5) Silver monitoring is only required where Cu/Ag anode is used.
- (6) Phosphorus monitoring is only required where additive containing phosphorus is used.

B. Special conditions.

1. There shall be no discharge of floating solids or visible foam in other than trace amounts.
2. No discharges other than cooling water, as defined, are permitted under this general permit.
3. The use of any chemical additives not identified in the registration statement, except chlorine, without prior approval is prohibited under this general permit. Prior approval shall be obtained from the DEQ before any changes are made to the chemical and/or nonchemical treatment technology employed in the cooling water system. Requests for approval of the change shall be made in writing and shall include the following information:
 - a. Describe the chemical and/or nonchemical treatment to be employed and its purpose; if chemical additives are used, provide the information prescribed in subdivisions 3 b, c, d and e;
 - b. Provide name and manufacturer of each additive used;
 - c. Provide list of active ingredients and percentage composition;
 - d. Give the proposed schedule and quantity of chemical usage, and estimate the concentration in the discharge; and
 - e. Attach available aquatic toxicity information for each additive proposed for use.
 - f. Attach any other information such as product or constituent degradation, fate, transport, synergies, bioavailability, etc. that will aid the board with the toxicity evaluation for the discharge.
4. Where cooling water is discharged through a municipal storm sewer system to surface waters, the permittee shall, within 30 days of coverage under this general permit, notify the owner of the municipal separate storm sewer system of the existence of the discharge and provide the following information: the name of the facility; a contact person and phone number; nature of the discharge, number of the outfalls, and the location of the discharge. A copy of such notification shall be provided to the department.
5. The permittee shall at all times properly operate and maintain all cooling water systems. Inspection shall be conducted for each cooling water unit by the plant personnel at least once per year with reports maintained on site.
6. The permittee shall notify the Department as soon as they know or have reason to believe:
 - a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:
 - (1) One hundred micrograms per liter (100 ug/l);

- (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; 500 micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
- (3) Five times the maximum concentration value reported for that pollutant in the permit application; or
- (4) The level established by the board in accordance with 9 VAC 25-31-220 F.

b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:

- (1) Five hundred micrograms per liter (500 ug/l);
- (2) One milligram per liter (1 mg/l) for antimony;
- (3) Ten times the maximum concentration value reported for that pollutant in the permit application; or
- (4) The level established by the board in accordance with 9 VAC 25-31-220 F.

PART II

CONDITIONS APPLICABLE TO ALL VPDES PERMITS

A. Monitoring.

1. Samples and measurements taken as required by this permit shall be representative of the monitored activity.
2. Monitoring shall be conducted according to procedures approved under 40 CFR Part 136 or alternative methods approved by the U.S. Environmental Protection Agency, unless other procedures have been specified in this permit.
3. The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will ensure accuracy of measurements.

B. Records.

1. Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) and time(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses.
2. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years, the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the registration statement for this permit, for a period of at least 3 years from the date of the sample, measurement, report or request for coverage. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the permittee or as requested by the board.

C. Reporting monitoring results.

1. The permittee shall submit the results of the monitoring required by this permit not later than the 10th day of the month after monitoring takes place, unless another reporting schedule is specified elsewhere in this permit. Monitoring results shall be submitted to the department's regional office.

2. Monitoring results shall be reported on a Discharge Monitoring Report (DMR) or on forms provided, approved or specified by the department.

3. If the permittee monitors any pollutant specifically addressed by this permit more frequently than required by this permit using test procedures approved under 40 CFR Part 136 or using other test procedures approved by the U.S. Environmental Protection Agency or using procedures specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the department.

4. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

D. Duty to provide information. The permittee shall furnish to the Department, within a reasonable time, any information which the Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Board may require the permittee to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from his discharge on the quality of state waters, or such other information as may be necessary to accomplish the purposes of the State Water Control Law. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

E. Compliance schedule reports. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

F. Unauthorized discharges. Except in compliance with this permit or another permit issued by the board, it shall be unlawful for any person to:

1. Discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances; or

2. Otherwise alter the physical, chemical or biological properties of such state waters and make them detrimental to the public health, or to animal or aquatic life, or to the use of such waters for domestic or industrial consumption, for recreation, or for other uses.

G. Reports of unauthorized discharges. Any permittee who discharges or causes or allows a discharge of sewage, industrial waste, other wastes or any noxious or deleterious substance into or upon state waters in violation of Part II F, or who discharges or causes or allows a discharge that may reasonably be expected to enter state waters in violation of Part II F, shall notify the department of the discharge immediately upon discovery of the discharge, but in no case later than 24 hours after said discovery. A written report of the unauthorized discharge shall be submitted to the department within five days of discovery of the discharge. The written report shall contain:

1. A description of the nature and location of the discharge;
2. The cause of the discharge;
3. The date on which the discharge occurred;

4. The length of time that the discharge continued;
5. The volume of the discharge;
6. If the discharge is continuing, how long it is expected to continue;
7. If the discharge is continuing, what the expected total volume of the discharge will be; and
8. Any steps planned or taken to reduce, eliminate and prevent a recurrence of the present discharge or any future discharges not authorized by this permit.

Discharges reportable to the department under the immediate reporting requirements of other regulations are exempted from this requirement.

H. Reports of unusual or extraordinary discharges. If any unusual or extraordinary discharge including a bypass or upset should occur from a treatment works and the discharge enters or could be expected to enter state waters, the permittee shall promptly notify, in no case later than 24 hours, the department by telephone after the discovery of the discharge. This notification shall provide all available details of the incident, including any adverse affects on aquatic life and the known number of fish killed. The permittee shall reduce the report to writing and shall submit it to the department within five days of discovery of the discharge in accordance with Part II I 2. Unusual and extraordinary discharges include but are not limited to any discharge resulting from:

1. Unusual spillage of materials resulting directly or indirectly from processing operations;
2. Breakdown of processing or accessory equipment;
3. Failure or taking out of service some or all of the treatment works; and
4. Flooding or other acts of nature.

I. Reports of noncompliance. The permittee shall report any noncompliance which may adversely affect state waters or may endanger public health.

1. An oral report shall be provided within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which shall be reported within 24 hours under this subsection:

- a. Any unanticipated bypass; and
- b. Any upset which causes a discharge to surface waters.

2. A written report shall be submitted within five days and shall contain:

- a. A description of the noncompliance and its cause;
- b. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and

c. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The board may waive the written report on a case-by-case basis for reports of noncompliance under Part II I if the oral report has been received within 24 hours and no adverse impact on state waters has been reported.

3. The permittee shall report all instances of noncompliance not reported under Parts II I 1 or 2, in writing, at the time the next monitoring reports are submitted. The reports shall contain the information listed in Part II I 2.

NOTE: The immediate (within 24 hours) reports required in Parts II G, H and I may be made to the department's regional office by telephone or by fax. For reports outside normal working hours, leave a message and this shall fulfill the immediate reporting requirement. For emergencies, the Virginia Department of Emergency Services maintains a 24-hour telephone service at 1-800-468-8892.

J. Notice of planned changes.

1. The permittee shall give notice to the department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

a. The permittee plans alteration or addition to any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:

(1) After promulgation of standards of performance under §306 of Clean Water Act which are applicable to such source; or

(2) After proposal of standards of performance in accordance with §306 of Clean Water Act which are applicable to such source, but only if the standards are promulgated in accordance with §306 within 120 days of their proposal;

b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations nor to notification requirements specified elsewhere in this permit; or

c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

2. The permittee shall give advance notice to the department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

K. Signatory requirements.

1. Registration statements. All registration statements shall be signed as follows:

a. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the

corporation in charge of a principal business function, or any other person who performs similar policy-making or decision-making functions for the corporation, or (ii) the manager of one of more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

c. For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a public agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

2. Reports, etc. All reports required by permits, and other information requested by the board shall be signed by a person described in Part II K 1, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described in Part II K 1;

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company (a duly authorized representative may thus be either a named individual or any individual occupying a named position); and

c. The written authorization is submitted to the department.

3. Changes to authorization. If an authorization under Part II K 2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part II K 2 shall be submitted to the department prior to or together with any reports or information to be signed by an authorized representative.

4. Certification. Any person signing a document under Parts II K 1 or 2 shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

L. Duty to comply. The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the State Water Control Law and the Clean Water Act, except

that noncompliance with certain provisions of this permit may constitute a violation of the State Water Control Law but not the Clean Water Act. Permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

The permittee shall comply with effluent standards or prohibitions established under §307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under §405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if this permit has not yet been modified to incorporate the requirement.

M. Duty to reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit. All permittees with a currently effective permit shall submit a new registration statement at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Board. The Board shall not grant permission for registration statements to be submitted later than the expiration date of the existing permit.

N. Effect of a permit. This permit does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorize any injury to private property or invasion of personal rights, or any infringement of federal, state or local law or regulations.

O. State law. Nothing in this permit shall be construed to preclude the institution of any legal action under, or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any other state law or regulation or under authority preserved by §510 of the Clean Water Act. Except as provided in permit conditions on bypass (Part II U), and upset (Part II V), nothing in this permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

P. Oil and hazardous substance liability. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under §§62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

Q. Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes effective plant performance, adequate funding, adequate staffing, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

R. Disposal of solids or sludges. Solids, sludges or other pollutants removed in the course of treatment or management of pollutants shall be disposed of in a manner so as to prevent any pollutant from such materials from entering state waters.

S. Duty to mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

T. Need to halt or reduce activity not a defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

U. Bypass.

1. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts II U 2 and U 3.

2. Notice.

a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, prior notice shall be submitted, if possible at least ten days before the date of the bypass.

b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Part II I.

3. Prohibition of bypass.

a. Bypass is prohibited, and the board may take enforcement action against a permittee for bypass, unless:

(1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(3) The permittee submitted notices as required under Part II U 2.

b. The board may approve an anticipated bypass, after considering its adverse effects, if the board determines that it will meet the three conditions listed above in Part II U 3 a.

V. Upset.

1. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of Part II V 2 are met. A determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is not a final administrative action subject to judicial review.

2. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An upset occurred and that the permittee can identify the cause(s) of the upset;

- b. The permitted facility was at the time being properly operated;
- c. The permittee submitted notice of the upset as required in Part II I; and
- d. The permittee complied with any remedial measures required under Part II S.

3. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

W. Inspection and entry. The permittee shall allow the director, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:

- 1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- 2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- 3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- 4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act and the State Water Control Law, any substances or parameters at any location.

For purposes of this section, the time for inspection shall be deemed reasonable during regular business hours, and whenever the facility is discharging. Nothing contained herein shall make an inspection unreasonable during an emergency.

X. Permit actions. Permits may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Y. Transfer of permits.

1. Permits are not transferable to any person except after notice to the department. Except as provided in Part II Y 2, a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued, or a minor modification made, to identify the new permittee and incorporate such other requirements as may be necessary under the State Water Control Law and the Clean Water Act.

2. As an alternative to transfers under Part II Y 1, this permit may be automatically transferred to a new permittee if:

- a. The current permittee notifies the department at least 30 days in advance of the proposed transfer of the title to the facility or property;
- b. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and

c. The board does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Part II Y 2 b.

Z. Severability. The provisions of this permit are severable. If any provision of this permit or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances and the remainder of this permit, shall not be affected thereby.

Attachment D

**Registration Statement and Instructions
General Permit VAG25**

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VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM
GENERAL PERMIT REGISTRATION STATEMENT
FOR COOLING WATER DISCHARGES

1. **APPLICANT INFORMATION**

A. Name of Facility: _____

B. Facility Owner: _____

C. Owner's Mailing Address

a. Street or P.O. Box _____

b. City or Town _____ c. State ____ d. Zip Code _____

e. Phone Number _____

D. Facility Location: _____

Street No., Route No., or Other Identifier

County

E. Is the operator of the facility also the owner? ____ Yes ____ No

If No, complete F. & G.

F. Name of Operator: _____

G. Operator's Mailing Address

a. Street or P.O. Box _____

b. City or Town _____ c. State ____ d. Zip Code _____

e. Phone Number _____

2. **FACILITY INFORMATION**

A. Does this facility currently have a VPDES permit? Yes____ No____

If yes, give permit number. _____

B. List any point source discharges that are not composed entirely of cooling water _____

C. List type and size (tons) of cooling equipment or non-contact cooling water process:
Type _____ Size (tons) _____

D. Complete the following if any chemical and/or non-chemical treatment is employed in each of the cooling water systems:

- a. Describe the chemical and/or non-chemical treatment to be employed and its purpose;

If chemical additives other than chlorine are used, complete b, c, d and e below.

- b. Provide name and manufacturer of each additive used;

- c. Provide list of active ingredients and percent composition;

- d. Give the proposed schedule and quantity of chemical usage, and estimate the concentration in the discharge; and

- e. Attach available aquatic toxicity information for each additive proposed for use.

- f. Attach any other information such as product or constituent degradation, fate, transport, synergies, bioavailability, etc., that will aid the Board with the toxicity evaluation for the discharge.

E. Describe any type of treatment or retention being provided to the wastewater before discharge (i.e. retention ponds, settling ponds, etc.)

3. **FACILITY SCHEMATIC DRAWING**

Attach a schematic drawing of the cooling water equipment which shows the source of the cooling water, its flow through the facility, and each cooling water discharge point.

4. **MAP**

For cooling water system with a direct discharge to surface waters, attach a topographic map extending to at least one mile beyond property boundary. The map must show the outline of the facility, and the location of each of its existing and proposed intake and discharge points. Include all springs, rivers and other surface water bodies.

5. **DISCHARGE INFORMATION**

- A. List all cooling water discharges by a number that is the same as on the map required in Question 4, if applicable. Identify the source of cooling water (i.e. municipal system, etc.). Estimate the maximum daily discharge flow in gallons per day (gpd). Give the name of the waterbody receiving direct discharge or discharge through the municipal separate storm sewer system.

Outfall No.	Source	Max. Daily Flow (gpd)	Receiving Stream

B. Identify the duration and frequency of the discharge for each separate discharge point:

- a. Continuous:_____
- b. Intermittent:(please describe)_____
- c. Seasonal:_____

C. Give the name and contact information of the owner of the municipal separate storm sewer system that receives the discharge (if applicable):

6. CERTIFICATION:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

Signature _____ Date: _____

Name of person(s) signing above: _____
(printed or typed)

Title(s):_____

REQUIRED ATTACHMENTS

Aquatic Toxicity Information For Chemical Additives (if applicable)
Facility Schematic Drawing
Topographic Map (if applicable)

For Department Use Only:

Accepted/Not Accepted by:_____ Date: _____
Basin_____ Stream Class_____ Section_____
Special Standards_____

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**INSTRUCTIONS FOR COMPLETING THE REGISTRATION STATEMENT
FOR
THE GENERAL VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM (VPDES) PERMIT
FOR COOLING WATER DISCHARGES (VAG25)**

WHO MUST FILE THE REGISTRATION STATEMENT

This registration statement must be completed and submitted by any cooling equipment facilities requesting coverage under the general permit for cooling water discharges.

WHERE TO FILE THE REGISTRATION STATEMENT

The completed registration statement with original signature, a copy of the fee form, and a copy of your check for the appropriate fee should be sent to the Department of Environmental Quality Regional Office for your area. The original fee form and the original check should be sent to Receipts Control at the DEQ's Richmond Office. The address to send the fee form and check is provided in the Fee Form Instructions. The Regional Office for your area depends on the county in which the discharge is located. Regional office addresses can be obtained from our website at www.deq.state.va.us, or by calling the DEQ at (804) 698-4000.

COMPLETENESS

Complete all items except where indicated, or enter NA for "not applicable" in order for your registration statement to be accepted. If you need more space than the form allows, attach extra sheets of paper as necessary.

DEFINITIONS

"Blowdown" means a discharge of recirculating water from any cooling equipment or cooling process in order to maintain a desired quality of the recirculating water. Boiler blowdown is excluded from this definition.

"Cooling Water" means water used for cooling which does not come into direct contact with any raw product, intermediate product (other than heat) or finished product. For the purposes of this general permit, cooling water can be generated from any cooling equipment blowdown or produced as a result of any non-contact cooling process through either a single pass (once through) or recirculating system.

LINE BY LINE INSTRUCTIONS

Item 1. APPLICANT INFORMATION

- Item A: Provide the name of the facility where the cooling equipment is located.
- Item B: Provide the name of the person or corporation that owns the business. This does not have to be the owner of the building (e.g. if it is leased) but should be a person who is responsible for the business and wants coverage under the general permit.
- Item C: Provide the mailing address and phone number of the above person.
- Item D: Indicate here the physical location of the facility if it can't be located from the mailing address.
- Item E: If someone other than the owner listed in item B runs the plant and is the person with whom business will be conducted, check **No**. Otherwise check **Yes**.
- Item F: If **No** was checked above, indicate the name of the person other than the owner who operates the facility.
- Item G: Provide the address and phone number of the person other than the owner here.

Item 2. FACILITY INFORMATION

- Item A: Provide permit number for any valid VPDES permit held by the facility.
- Item B: Describe any point source discharges from your facility that are not composed entirely of cooling water.
- Item C: List type and size (tons) of cooling equipment or non-contact cooling water process. Most cooling equipment will have a manufacturer's identification plate attached which records the Make/Model of the unit. The size of the equipment should be calculated by using the following formula and you may consult with the local representative of the manufacturer to obtain the specific data:

$$\text{Tonnage} = (\text{GPM} * \Delta T) / 30$$

GPM= Flow Rate (gallons per minute)

ΔT = 10EF (Standard design temperature change)

Item D: The use of any chemical additives, except chlorine, without prior approval is prohibited under this general permit. You should list all chemicals currently used or which you anticipate to use within the life of the permit term. Prior approval shall be obtained from the DEQ before any changes are made to the chemical and non-chemical treatment technology employed in the cooling equipment. The MSDS and available aquatic toxicity information for each additive used may be obtained from the manufacturer of the chemical additives. Attach any other information that will aid the DEQ in evaluating the toxicity of the discharge.

Item E: Describe any type of treatment or retention being provided to the cooling water before discharge.

Item 3: FACILITY SCHEMATIC DRAWING

A schematic drawing of the cooling equipment, not of the building facility, should show the source(s) of the cooling water (i.e. municipal water supply, etc.), its flow through the cooling system, and each cooling water discharge point (the municipal separate storm sewer system (MS4s) or directly to surface waters)

Item 4: MAP

Map should be legible and of sufficient scale to show the required features with the site boundaries clearly marked. Map is only required for cooling water system with a direct discharge to surface waters.

Item 5: DISCHARGE INFORMATION

Item A: List all discharge outfalls by a number, such as 001, 002, etc. Discharge to the receiving stream may be through a municipal separate storm sewer system (MS4s). In such cases, identify the receiving stream with a footnote recognizing the owner of the MS4s which the outfall discharges through.

Item B: Identify the duration and frequency of the discharge for each separate discharge point. Provide the name of the owner of the MS4 that receives the discharge, if applicable.

Item C: Identify the name and provide contact information of the owner of the MS4 to which each applicable outfall discharges. If you discharge to surface waters through an MS4, you are required under the general permit to notify the owner of the MS4 of the existence of the discharge within 30 days and to copy DEQ with such notification.

Item 6: CERTIFICATION

All registration statement shall be signed as follows:

1. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
2. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
3. For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a public agency includes: (i) The chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

Attachment E

Fee Form

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**DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER DIVISION
PERMIT APPLICATION FEE
EFFECTIVE JULY 1, 2002**

INSTRUCTIONS

Applicants for individual Virginia Pollutant Discharge Elimination System (VPDES), Virginia Pollution Abatement (VPA), Virginia Water Protection (VWP), Surface Water Withdrawal (SWW), and Ground Water Withdrawal (GWW) Permits are required to pay permit application fees except farming operations engaged in production for market. Fees are also required for registration for coverage under General Permits except for the general permits for sewage treatment systems with discharges of 1,000 gallons per day (GPD) or less and for Corrective Action Plans for leaking underground storage tanks. Except for VWP permits, fees must be paid when applications for permit issuance, reissuance or modification are submitted. Applicants for VWP permits will be notified by the DEQ of the fee due. Applications will be considered incomplete if the proper fee is not paid and will not be processed until the fee is received.

The permit fee schedule is included with this form. Fees for permit issuance or reissuance and for permit modification are included. Once you have determined the fee for the type of application you are submitting, complete this form. The original copy of the form and your check or money order payable to "Treasurer of Virginia" should be mailed to the Department of Environmental Quality, Receipts Control, P.O. Box 10150, Richmond, VA 23240. A copy of the form and a copy of your check or money order should accompany the permit application. You should retain a copy for your records. Please direct any questions regarding this form or fee payment to the DEQ Office to which you are submitting your application.

APPLICANT NAME: _____ SSN/FIN: _____

ADDRESS: _____ DAYTIME PHONE: (_____) _____
Area Code

FACILITY/ACTIVITY NAME: _____

LOCATION: _____

TYPE OF PERMIT APPLIED FOR
(from Fee Schedule): _____

TYPE OF ACTION: _____ New Issuance _____ Reissuance _____ Modification

AMOUNT OF FEE SUBMITTED
(from Fee Schedule): _____

EXISTING PERMIT NUMBER (if applicable): _____

DEQ OFFICE TO WHICH APPLICATION SUBMITTED (check one)

<input type="checkbox"/> Abingdon/SWRO	<input type="checkbox"/> Harrisonburg/VRO	<input type="checkbox"/> Kilmarnock/KO	<input type="checkbox"/> Woodbridge/NVRO	<input type="checkbox"/> Lynchburg/SCRO
<input type="checkbox"/> Richmond/PRO	<input type="checkbox"/> Richmond/Headquarters	<input type="checkbox"/> Roanoke/WCRO	<input type="checkbox"/> Virginia Beach/TRO	

FOR DEQ USE ONLY

Date: _____
DC #: _____

Original Form and Check - DEQ Accounting Office
Copy of Form and Copy of Check - DEQ Regional or Permit Program Office

**FEE SCHEDULE--APPLICATIONS FOR INDIVIDUAL PERMITS—EFFECTIVE JULY 1, 2002
EXCEPT FOR VIRGINIA WATER PROTECTION PERMITS
(DUE WITH SUBMISSION OF APPLICATION)**

TYPE OF PERMIT	ISSUANCE/ REISSUANCE	MODIFICATION
VPDES Industrial Major	\$24,000	\$12,000
VPDES Municipal Major	\$21,300	\$10,650
VPDES Municipal Storm Water	\$21,300	\$10,650
VPDES Industrial Minor, No Standard Limits	\$10,200	\$5,100
VPDES Industrial Minor, Standard Limits	\$6,600	\$3,300
VPDES Industrial Storm Water	\$7,200	\$3,600
VPDES Municipal Minor, 100,000 GPD or More	\$7,500	\$3,750
VPDES Municipal Minor, More than 10,000 GPD but Less than 100,000 GPD	\$6,000	\$3,000
VPDES Municipal Minor, More than 1,000 GPD but 10,000 GPD or Less	\$5,400	\$2,700
VPDES Municipal Minor, 1,000 GPD or Less	\$4,200	\$2,100
VPA Industrial Wastewater Operation	\$10,500	\$5,250
VPA Industrial Sludge Operation	\$7,500	\$3,750
VPA Municipal Wastewater Operation	\$13,500	\$6,750
VPA Municipal Sludge Operation	\$7,500	\$3,750
GWW Initial Permit for an Existing Withdrawal	\$1,200	\$ 600
GWW Permit for a New or Expanded Withdrawal	\$6,000	\$3,000
SWW Certificate for an Existing Withdrawal	\$6,000	\$3,000
SWW Permit for a New or Expanded Withdrawal	\$9,000	\$4,500

**FEE SCHEDULE--APPLICATIONS FOR INDIVIDUAL VIRGINIA WATER PROTECTION PERMITS
(APPLICANT WILL BE NOTIFIED OF FEE DUE BY DEQ)**

TYPE OF PERMIT	ISSUANCE/ REISSUANCE	MODIFICATION
VWP Category I Project	\$9,000	\$4,500
VWP Category II Project	\$6,300	\$3,150
VWP Category III Project	\$2,400	\$1,200
VWP Waiver	No waivers	No waivers

FEE SCHEDULE--REGISTRATION FOR GENERAL PERMIT COVERAGE

With the following exceptions, the maximum fee for registration for general permit coverage is \$600. The specific amount of the fee depends on the amount of time the general permit will remain in effect. Please contact the DEQ Office to which registration materials are to be submitted for assistance in determining the amount of the fee due.		
Registration for coverage under any VWP general permit authorizing impacts to less than one-half of an acre of non-tidal surface waters.	\$600	No modifications
Registration for coverage under any VWP general permit authorizing impacts to one-half of an acre or more of non-tidal surface waters.	\$1,200	No modifications

Attachment F

**Example Registration Statement Transmittal Letter
General Permit VAG25**

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Transmittal Letter
Cooling Water Discharges General Permit Registration Statement

Regional Letterhead

Facility Name
Address

ATTN: John Contact

RE: Registration for the General VPDES Permit for Cooling Water Discharges

Dear Mr. Contact:

General VPDES permit VAG25 for cooling water discharges was adopted by the State Water Control Board at its January 6, 2003 meeting and was effective as of March 2, 2003. This general permit provides VPDES permit coverage to discharges from all qualified cooling water dischargers who submit a registration statement and are approved for coverage.

Discharges covered under the existing general permit VAG25, which expires March 1, 2003, must submit a registration statement if they wish to continue to be covered under the new general permit effective March 2, 2003. The registration statement and applicable fee must be received by the Department of Environmental Quality prior to March 2, 2003.

Individual VPDES permit holders or other cooling equipment owners must complete and submit the enclosed registration statement if they wish to be covered under this general permit instead of an individual permit. The registration must be submitted [at least 180 days prior to the expiration date of an existing individual permit] [at least 30 days prior to commencing operation of a new process] [within X days]*. If your facility qualifies for the general permit, it is recommended that you obtain coverage in order to simplify requirements for having your cooling water discharges permitted.

**Note: For non-permitted existing facilities, inform them of the requirement to obtain a permit, the consequences of discharging without permit coverage and set a time for submittal.*

Instructions for completing the registration form are included in this package. The application fee for this general permit is \$600.00, and should be submitted with the registration statement.

If you have any questions, please do not hesitate to contact us.

Sincerely,

Regional WPM Name
Water Permit Manager

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Attachment G

**Example Transmittal Letter for Issuing General Permit Coverage
VAG 25**

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**Transmittal Letter
Cooling Water Discharges General Permit**

Regional Letterhead

Facility Name
Address

ATTN: John Contact

RE: Coverage under the General VPDES Permit for Cooling Water Discharges VAG25_____

Dear Permittee:

We have reviewed your Registration Statement received on _____, and determined that this cooling water discharge is hereby covered under the referenced general VPDES permit. The effective date of your coverage under this general permit is the effective date of the permit or the date of this letter, whichever is later. The enclosed copy of the general permit contains the effluent limitations, monitoring requirements and other conditions of coverage.

In accordance with the permit you are required to submit discharge monitoring reports (DMR) to:

Regional Office Address

The reporting form[s] which specifies[y] the applicable effluent limitation and monitoring requirements is [are] included with the permit. You will be responsible for obtaining additional copies of the reporting form. A DMR is to be completed for each permitted outfall. The sampling and reporting are on a quarterly basis with the DMRs due on the tenth of January, April, July and October.

The general permit will expire on March 1, 2008. The conditions of the permit require that you submit a new registration statement at least 180 days prior to that date if you wish continued coverage under the general permit, unless permission is granted to submit a new registration statement on a later date. Permission can not be granted to submit the registration statement after the expiration date of the permit.

If you have any questions, please do not hesitate to contact us.

Sincerely,

Regional WPM Name
Water Permit Manager

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Appendix H

November 18, 2002 Memorandum, “VPDES General Permit for Cooling Water Discharges”

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Memorandum

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

Office of Water Permit Programs

9th Floor, 629 East Main Street, Richmond, VA

SUBJECT: VPDES General Permit for Cooling Water Discharges

TO: Martin Ferguson

FROM: Jon van Soestbergen, P.E.

DATE: November 18, 2002

COPIES: Regional Water Permit Managers

Background

At the Water Permit Managers (WPM) meeting held in DEQ's Valley Regional Office September 25-26, 2002, an issue regarding the cooling water general permit's adequacy was brought forth. A review by one of the regional offices of data received from a select number of facilities registered under the general permit indicated exceedances of the water quality criteria for metals, particularly copper and zinc. The issue is whether current efforts to amend the regulation and reissue the general permit in its present form should be suspended, thus requiring individual VPDES permitting of all registered facilities.

The subject general permit will expire March 1, 2003 and the regulation and permit are currently going through the amendment and reissuance process. A technical advisory committee (TAC), consisting of several stakeholders and DEQ regional and central offices staff was formed and met three times during this process, although the DMR data collected and the current issue regarding metals was not evaluated and considered by the TAC. The proposed draft amended regulation and general permit were developed based on the existing general permit with consideration given to the recommendations of the TAC. The proposed general permit has been approved by EPA Region III, and has been public noticed. A public hearing was held on September 27, 2002. No comments were received at the public hearing. During the public comment period, one written comment was received pertaining to the temperature limitation in the general permit and its applicability to select discharge scenarios.

A review was performed of CEDS and information provided by the regional offices after the September WPM meeting relative to metals data obtained through DMR reporting by permitted facilities, and the following summary and recommendation is provided.

Summary

There are currently 86 facilities listed in the CEDS database, with a total of 118 outfalls, as registered under the general permit. The majority of the facilities are located in DEQ's Northern Virginia and Tidewater regions. DMR data reviewed for 19 facilities indicates that 11 suggest recurring violations of Virginia's copper criteria in the effluent. However, the data set for the vast majority of the facilities reviewed is small, and the metals data for at least some of the data collected was found to be invalid because of sampling and/or analysis procedures. The data also suggests that where the criteria is exceeded, the source of the cooling water is a municipal water supply system.

Recommendation

Staff intends to recommend the Board adopt the regulation and general permit at its December 11, 2002 meeting, to be effective March 2, 2003.

Because the problem appears to be limited to cooling water systems where the water source is a municipal water supply system, there are potential data validity problems, and the data sets collected are small, it is not recommended that the general permit be terminated or amended at this time. Rather, review of specific facilities where submitted data suggests exceedances and collection and analysis of additional data is recommended as follows:

- 1) For individual facilities scheduled for registration under the reissued general permit, perform an analysis of the available data to determine whether the data is adequate and subsequently whether an effluent limit is necessary. If so, issue an individual permit for such facilities.
- 2) Make efforts to expand upon the number of permitted facilities and continue to collect data on a quarterly basis as required by the permit.
- 3) Perform sampling inspections at all the facilities registered under the general permit and inspect the laboratories performing the analyses for the permitted facilities to maximize confidence in the data collected.
- 4) Two years prior to expiration of the proposed permit (i.e. Spring 2005 based on a March 1, 2007 expiration date), analyze the data from all permitted facilities and from permitted facilities where the water source in a municipal water supply system to determine the following:
 - a) Is a general permit appropriate for permitting of cooling water discharges?
 - b) Should facilities whose source water is from a municipal water supply system be excluded from coverage under the general permit?
 - c) Are additional effluent limitations required in the general permit for all facilities or a subset of facilities?

Implementation of the above recommendations should make it possible for DEQ staff to make a sound defensible decision regarding the metals data collected as required by the general permit and the permit's adequacy in ensuring applicable water quality criteria are met.